

PATENT APPLICATION No. 10/661,465  
Applicants: Franco Vitaliano and Gordana Vitaliano  
Amendments to the Claims

Claims

- 1 1. (Original): A quantum information processing element comprising  
2 a cage defining a cavity formed from a plurality of self-assembling protein molecules,  
3 and  
4 one or more cargo elements located within the cavity, wherein at least one of the cargo  
5 elements comprises a qubit programmable into a plurality of logical states.
- 1 2. (Original): A quantum information processing element according to claim 1, comprising  
2 receptors for capturing and positioning one or more cargo elements within the cavity.
- 1 3. (Original): A quantum information processing element according to claim 2, comprising  
2 a vesicle located within the cage and enclosing one or more cargo elements, wherein the  
3 receptors extend through the vesicle to capture and position a cargo element within the vesicle.
- 1 4. (Original): A quantum information processing element according to claim 3, comprising  
2 adaptors disposed between the receptors and the cage and binding to the receptors.
- 1 5. (Original): A quantum information processing element according to claim 1, comprising  
2 a vesicle located within the cage and enclosing the one or more cargo elements.
- 1 6. (Original): A quantum information processing element according to claim 1, comprising